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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,978	01/18/2006	Toshiya Takagi	2006_0020A	5142

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EXAMINER

GILLIAM, BARBARA LEE

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/564,978

**Applicant(s)**

TAKAGI ET AL.

**Examiner**

Barbara L. Gilliam

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/18/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claims***

2. Claims 1-15 are pending.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-12, 14-15 are rejected under 35 U.S.C.102(b) as being clearly anticipated by BARZYNSKI et al. (US 4,555,471).

a. The multilayer image-recording material of BARZYNSKI et al. clearly anticipates the presently claimed relief printing original plate. Specifically the multilayer image-recording material of BARZYNSKI et al. comprises a support, a photosensitive relief-forming layer and a mask-forming layer. The multilayer image recording material further comprises an intermediate layer present between the relief-forming layer and mask-forming layer and a top layer which meets the present limitations for the cap layer. The mask-forming layer is sensitive to heat radiation and contains a thermographic

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system which when irradiated with an IR laser having a wavelength greater than 1.00  $\mu\text{m}$  undergoes a decrease in absorption of actinic radiation in the wavelength range of from 300 to 420 nm (claims 1 and 3; col. 3, line 6 – col. 4, line 3). Preferably the thermochromic system in the mask-forming layer is together with a binder such as polyurethanes (col. 4, lines 16 – 29). After exposure to heat using an IR laser, the multilayer image-recording material is exposed completely, through the mask layer to actinic light having a wavelength of from 300 to 420 nm. Subsequently the mask-forming layer and the intermediate layer are removed and the relief image is then developed from the relief-forming layer (claim 5).

5. Claims 1-2, 4-11, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by VAN ZOEREN (US 5,506,086).

a. The process taught by VAN ZOEREN is a process for making a flexographic printing plate from a photosensitive printing element wherein the photosensitive printing element comprises a support, an infrared-transparent photopolymerizable layer comprising an initiator having sensitivity to non-infrared actinic radiation, at least one layer of infrared sensitive material comprising an infrared radiation absorbing agent and at least one self-ablative binder and a material capture sheet (claim 1; col. 5, lines 16-40; col. 6, lines 15-65). Examples of the self-ablative binder include cellulosic materials. The infrared ablatable layer and material capture sheet are imagewise ablated with infrared laser radiation to form a mask which can be done using various types of lasers, preferably diode lasers emitting in the range of 780

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to 980 nm. The material capture sheet is removed and the photosensitive element is overall exposed to actinic radiation through the mask. Subsequently the element is developed (claim 1; col. 14, lines 13-35). In order for the infrared sensitive layer to be opaque to ultraviolet or visible radiation, the layer includes a radiation-opaque material which prevents the transmission of actinic light (col. 5, lines 40-64). The radiation-opaque material absorbs actinic light and therefore meets the present limitations for the ultraviolet absorber. The flexographic printing plate can comprise one or more barrier layers (col. 8, line 40 - col. 10, line 5) which meet the present limitations for the cap layer.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In US 7,049,047 B2 (TENAGLIA et al.) and US 7,029,805 B2 (RAY et al.) teach thermally imageable elements comprising a masking layer and a substrate (abstract). The masking layer absorbs ultraviolet radiation and infrared radiation and comprises a radiation absorber.

b. In US 6,451,505 B1 (PATEL et al.) and US 6,410,208 B1 (TENG) similar printing plates are taught.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara L. Gilliam whose telephone number is 571-272-

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1330. The examiner can normally be reached on Monday through Thursday, 8:00 AM - 5:30 PM.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

b. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Barbara L. Gilliam  
Primary Examiner  
Art Unit 1752

bg  
September 27, 2006